ENU 3132 | Reactor Thermal Engineering 1

Class Number: 21424

Fall 2026

Delivery Method: Primarily Classroom
TH | Period 8-9 (03.00 PM-04.55 PM) Turlington Hall 2328
T | Period 8-9 (03.00 PM-04.55 PM) Turlington Hall 2328

Instructor Information

Name: Duwayne Schubring

Email: dlschubring@ufl.edu
Telephone: (352) 294-7870

Office Hours
M 1405-1435, T 1310-1420, WF 1240-1430, R 1240-1420 (subject to change)
Preferred Method of Communication: E-mail preferred (address above, messages sent to the pseduo-e-mail in Canvas will be ignored)

Office Location

317A Materials Engineering Building (MAE, not MAE-A, MAE-B, or MAE-C)

Course Details

Catalog Description: Covers the first and second laws of thermodynamics and their applications to nuclear fission reactor systems, including power cycle analysis; steady-state and transient conduction with applications; and the current regulatory structure for nuclear fission reactors.
Pre- and Co-Requisites: Prereq: MAC 2313 and PHY 2048.
Credit Hours: 4
Course Fees: $0.00

Required Materials

Fundamentals of Termal-Fluid Sciences, 6e (Kortext eText)
Publisher: McGraw-Hill Education
All Access: This material is available on All Access

FUNDAMENTALS OF THERMAL-FLUID SCIENCES
ISBN: 9781260716979
Authors: YUNUS CENGEL, JOHN CIMBALA AND AFSHIN GHAJAR
Publisher: MCGRAW-HILL
Edition: 6TH

A Note on Materials

The textbook indicated is required. You may purchase the book in either electronic or hard-copy form (the exams are not open-book). You may also do a one-year electronic rental. I discourage a one-semester rental, as this will also be a required text for ENU 4133 in the spring.

Course Goals and Objectives

This course is the first of a three-course sequence in thermal engineering for nuclear fission reactors. It covers thermodynamics and topics in heat transfer, as well as the relationship between the US government and nuclear power.

Expectations and Student Learning Outcomes

At the end of this course, students will be able to:

- Apply introductory thermodynamics topics (properties, first law, entropy, and second law) to a range of systems, emphasizing nuclear engineering applications such as LWR power cycles. (Modules 1-15, Project, Exam 1-2, HW 1-6)
- Attain and apply knowledge of steady-state and transient conduction, as well as radiation heat transfer, to a range of systems, emphasizing nuclear engineering applications. (Modules 16-20, Exam 2-3, HW 7-9)
- Identify and describe the current government structure for promotion and regulation of nuclear power, along with the history of this relationship, and demonstrate knowledge via homework and exams. (Modules 21-25, Exam 3, HW 10-12)

Methods of Evaluation

There are 850 total points in the course. These points are equally valuable.

- Exams (450 points total, 150 points each)
    1. Modules 1-11
    2. Modules 11-18
    3. Comprehensive, focus on Modules 19 through 25
- Project: Optimization of LWR Power Cycle (100 points total)
- Homework (300 points total)
    1. Modules 1-3 (15 points)
    2. Modules 4-6 (35 points)
    3. Modules 7-9 (30 points)
    4. Modules 10-11 (25 points)
    5. Module 12 (20 points)
    6. Module 13-14 (35 points)
    7. Modules 16-17 (30 points)
    8. Module 18 (15 points)
    9. Module 19 (15 points)
    10. Module 20 (35 points)
    11. Modules 21-22 (25 points)
    12. Modules 23-25 (20 points)

Notes re: HW:

1. Not all homework was written at the time this syllabus was developed. I may adjust the individual homework values, above, by up to 5 points, but the sum will remain at 300.
2. This year's HW 8, 9, 10, 11, and 12 correspond to last year's HW 8 A, 8 B, 9, 10, and 11 respectively.

Grading Scale

Letter grade and percentage

Letter	Percentage Value
A	87 - 100%
A -	85 - 86.99%
B +	83 - 84.99%
B	75 - 82.99%
C	66 - 74.99%
E	65.99% and below

Course Schedule

The course is divided into 25 modules. The modules are not equally long, whether measured slide count, page count in the text or in supplemental materials on Canvas, time spent in class, or student effort. Deadlines will not be earlier than listed in the schedule, but may be later. Exams will only be delayed in exceptional circumstances (e.g.; university closure on the date of the exam or multiple cancelled class days prior to the exam). The week-by-week outline of lecture coverage is to be taken as a draft.

1. Introduction to Light Water Reactors (Notes on Canvas)
2. Introduction to Thermal-Fluid Sciences (Notes on Canvas)
3. Introduction to Reactor Thermal Hydraulics (Notes on Canvas)
4. Basic Concepts of Thermodynamics (CCG Chapter 2)
5. Heat and Work (CCG Chapter 3, Sections 1-5)
6. First Law of Thermodynamics (CCG Chapter 3, Section 6)
7. Properties of Pure Substances (CCG Chapter 4)
8. Using Property Tables (CCG Chapter 4, Section 5 & Notes on Canvas)
9. Closed Systems (CCG Chapter 5, Sections 1-2)
10. Thermodynamic Properties, Part 2 (CCG Chapter 5, Sections 3-6)
11. Control Volume Analysis (CCG Chapter 6)
12. Engineering Equation Solver (Notes on Canvas)
13. The Second Law of Thermodynamics (CCG Chapter 7 & Notes on Canvas)
14. Entropy (CCG Chapter 8)
15. Power Cycles and Applications (CCG Chapters 7 and 8 & Notes on Canvas)
16. Mechanisms of Heat Transfer (CCG Chapter 16)
17. Stead-State Conduction (CCG Chapter 17 & Notes on Canvas)
18. Transient Conduction (CCG Chapter 18 & Notes on Canvas)
19. Radiation Heat transfer (CCG Chapter 21)
20. Nuclear Applications of Conduction and Radiation (Notes on Canvas)
21. AEC, DOE, NRC (Notes on Canvas)
22. Code of Federal Regulations (CFR) (Notes on Canvas)
23. Reactor Licensing (Part 1 -- 10 CFR 50) (Notes on Canvas)
24. Reactor Licensing (Part 2 -- 10 CFR 52 & 53) (Notes on Canvas)
25. Ethics and Regulations (Notes on Canvas)

Week-by-Week Schedule (see Canvas for a day-by-day schedule in a more easily readable format)

1. (August 20) – Course Introduction and Module 1
2. (August 25, 27) – Modules 2-5 – HW.1 due 8/27
3. (September 1, 3) – Modules 6-8 – HW 2 due 9/3
4. (September 8, 10) – Modules 8-10
5. (September 15, 17) – Modules 10-11 – HW 3 due 9/15
6. (September 22, 24) – Modules 12-13 – HW 4 due 9/22
7. (September 29, October 1) – Exam 1, Module 14 – Exam 1 9/29, HW 5 due 10/1
8. (October 6, 8) – Modules 14-15 – HW 6 due 10/8

9. (October 13, 15) – Modules 16-17 – Project due 10/15
10. (October 20, 22) – Modules 18-19 – HW 7 due 10/22
11. (October 27, 29) – Modules 19-20 – HW 8 due 10/29
12. (November 3, 5) – Exam 2, Module 21 – Exam 2 11/3, HW 9 due 11/5
13. (November 10, 12) – Modules 22-23 – HW 10 due 11/12
14. (November 17, 19) – Modules 23-24 – HW 11 due 11/19
15. No Class (Thanksgiving)
16. (December 1) – Module 25 – HW 12 due 12/2
17. Final exam, 1230-1430 on Friday, December 11

University Policies and Resources

Information about grading policies, support for students with disabilities, course evaluations, the Honor Code, and other course policies and campus resources can be found on the Syllabus Policies page.

Attendance Policy

Excused and Unexcused Absences

Students may only participate in classes if they are registered officially or approved to audit with evidence of having paid audit fees. The Office of the University Registrar provides official class rolls to instructors.

Students are responsible for satisfying all academic objectives as defined by the instructor. Absences count from the first-class meeting.

Acceptable reasons for absence from or failure to engage in class include illness; Title IX-related situations; serious accidents or emergencies affecting the student, their roommates, or their family; special curricular requirements (e.g., judging trips, field trips, professional conferences); military obligation; severe weather conditions that prevent class participation; religious holidays; participation in official university activities (e.g., music performances, athletic competition, debate); and court-imposed legal obligations (e.g., jury duty or subpoena). Other reasons (e.g., a job interview or club activity) may be deemed acceptable if approved by the instructor.

For all planned absences, a student in a situation that allows an excused absence from a class, or any required class activity must inform the instructor as early as possible prior to the class. For all unplanned absences because of accidents or emergency situations, students should contact their instructor as soon as conditions permit.

Students shall be permitted a reasonable amount of time to make up the material or activities covered during absence from class or inability to engage in class activities because of the reasons outlined above.

If a student does not participate in at least one of the first two class meetings of a course or laboratory in which they are registered, and they have not contacted the department to indicate their intent, the student can be dropped from the course. Students must not assume that they will be dropped, however. The department will notify students if they have been dropped from a course or laboratory.

The university recognizes the right of the instructor to make attendance mandatory and require documentation for absences (except for religious holidays), missed work, or inability to fully engage in class. After due warning, an instructor can prohibit further attendance and subsequently assign a failing grade for excessive absences.

Religious Holidays Guidelines

At the University of Florida, students and faculty work together to allow students the opportunity to observe the holy days of their faith. A student should inform the faculty member of the religious observances of their faith that will conflict with class attendance, with tests or examinations, or with other class activities prior to the class or occurrence of that test or activity. The faculty member is then obligated to accommodate that particular student's religious observances. Because students represent a myriad of cultures and many faiths, the University of Florida is not able to assure that scheduled academic activities do not conflict with the holy days of all religious groups. Accordingly, individual students should make their need for an excused absence known in advance of the scheduled activities.

The Florida Board of Education and state law govern university policy regarding observance of religious holidays.

Guidelines

- Students, upon prior notification to their instructors, shall be excused from class or other scheduled academic activity to observe a religious holy day of their faith.
- Students shall be permitted a reasonable amount of time to make up the material or activities covered in their absence.
- Students shall not be penalized due to absence from class or other scheduled academic activity because of religious observances.

If a faculty member is informed of or is aware that a significant number of students are likely to be absent from class because of a religious observance, the faculty member should not schedule a major exam or other academic event at that time.

A student who is to be excused from class for a religious observance is not required to provide a second party certification of the reason for the absence. Furthermore, a student who believes that they have been unreasonably denied an education benefit due to religious beliefs or practices may seek redress through the student grievance procedure.

Absence due to Illness

A student who is absent from class or any required class-related activity because of illness should contact their instructor, if feasible, as early as possible prior to the missed class or activity.

Students shall be permitted a reasonable amount of time to make up the material or activities covered during an excused absence.

Students should contact their college by the deadline to drop a course for medical reasons. Students can petition the Dean of Students Office to drop a course for medical reasons. The university's policy regarding medical excuse from classes is maintained by the Student Health Care Center.

Twelve-Day Rule

Students who participate in university-sponsored athletic or scholarly activities are permitted to be absent 12 scholastic days per semester without penalty. A scholastic day is any day on which regular class work is scheduled as defined in the approved university calendar. More Info

The student or student's advisor must notify the instructor as early as possible prior to the anticipated absence to allow ample time for accommodations. Instructors must be flexible and not penalize students when re-scheduling during-term and final exams, class assignments, and other required activities and must follow the UF Attendance Policy herein and UF Examination Policies. As noted in the UF Examination Policies, during-term exams should be re-scheduled no later than before the end of the semester, while final exams no later than 90 days after the originally scheduled exam time. However, instructors are encouraged to re-schedule final and during-term exams, assignments,

and other activities as soon as possible after the last day of the absence and must not penalize the student in any way. More Info

A group's schedule that requires absence of more than 12 scholastic days should be adjusted so that no student is absent from campus more than 12 scholastic days. Students who previously have been warned in writing by their instructor about the impact of absences on their individual class performance should not incur additional absences, even if they have not been absent 12 scholastic days. The student is responsible to maintain satisfactory academic performance and attendance.

Course Policies and Resources

Office Hours Policies

Office hours are held in a hybrid format, with online availability via the following Zoom link: https://ufl.zoom.us/j/9057355922

For Zoom attendees: if you are in a private space (e.g.; your own house or apartment, a dorm room, etc.), please turn your camera off. If you are in a public space (e.g.; unused classroom, outdoors at UF), your camera status is at your discretion.

At the beginning of an office hour block, all those in line in person at the start of the office hour block will be addressed first, followed by those on Zoom who have been there since the start of the office hour block. If there is a line, visits are limited to 10 minutes per student or group. If you have further questions, you may go to the back of line and potentially return. Once both lines are cleared, I will continue on a first-come, first-served basis with no preference for in-person vs. Zoom.

End times of office hours will be enforced strictly, even if students are still waiting, as I have other engagements (including teaching class) immediately after each office hour block.

There are no office hours on days when no UF classes are held, including reading days and finals week.

Grading Notes

- I reserve the right to grant higher grades at the end of the course at my sole discretion, including the use of B- and C+. Under no circumstances will grades of C- or any flavor of D be used.

- Exams are individually curved. The details of this curve are included as part of the Exam Previews.
- Except on the Project (document professionalism line-items), grading in this course is plus-based. That is, I award you points based on correct steps, rather than deducting points for errors. As a result, a question such as, “Dr. Schubring, why did you take off 2 points here?” is both presumptuous and nonsensical, since you never had the points.
- There is no general protection against double jeopardy. Points are often allocated, particularly on exams, to each specific step and to obtaining the final, correct answer in each problem -- a single error will prevent you from earning points at that step and for the final answer.
- Per UF policy, grades are entered into Canvas to enable you to look up grades quickly. These grades are manually copied from other documents. I reserve the right to correct data-entry errors, as well as other errors, until finalization of grades with the registrar.

Grade Appeal

All appeals of grades, including those from clerical/grade-calculation errors, must be made within 1 week of return. (This may be modified for specific assignments near the end of the term. I will announce this via e-mail as needed.) Appeals will be considered for clerical errors, addition errors, and inconsistent scoring. Grade appeals will not be entertained if you simply do not like that (for example) Part 1 was worth only 2 points with Part 2 worth 5.

It is inevitable that scoring of essay answers is somewhat subjective; a margin of error of one point per line-item is applied for this reason. That is: if you receive a grade of 7/10 on an essay-like question, only those appeals that propose a grade of 9/10 or better will be considered.

Grade appeals must be provided in the following format:

- Provide, in PDF format only, a written summary of which problem(s) or part(s) you believe were graded inaccurately. Be as specific as possible.
- Send your appeal in the form of an e-mail with (a) “ENU 3132” and (b) “Grade Appeal” in the subject line.

You will be informed of the result of your appeal via e-mail reply.

If I believe you are not acting in a good faith belief that more points are deserved, I will deem the appeal frivolous. Requests to change an essay-like line-item by only one point will also be considered frivolous. Following two frivolous appeals, your grade appeal privilege through this method will be revoked. Further appeals must be done through the

petitions process, which requires formal paperwork and department/program level involvement.

Canvas and Electronic Communication

The Canvas platform will be used for file storage and for posting assignments and grades. I take no responsibility for downtime of this service, nor for actions of University of Florida staff that affect the website (including Canvas upgrades).

Do not use the Canvas Inbox feature to contact me. I only access Canvas when needed and therefore cannot guarantee rapid replies. Therefore, to avoid inconsistent responsiveness, I do not use Canvas's pseudo-e-mail at all. Instead, use real e-mail, which I check frequently. The primary means of communication to the class outside of class time will be e-mail listserv. This listserv will send to your @ufl.edu address only. Any inquiries regarding grading will be directed towards your @ufl.edu address only, per FERPA.

Technical and procedural questions will be answered as a reply to whatever e-mail address you used to send them. If the entire class will benefit from the answer, I may send to the class list (either in lieu of or in addition to a direct reply to you, at my discretion). If you do not wish to have a specific e-mail to me regarding technical content or course procedures replied to through the class list, you must explicitly state this in that e-mail. In such a case, I will reply directly to you and send a general-purpose announcement to the class list, not indicating who caused me to send it.

When sending questions via e-mail, please make sure you provide all the information needed for me to produce an answer or solution. This includes any files, particularly EES files, on which you are working. (Note: I will not open files from you in the following formats: .ppt, .pptx, .doc, .docx; make a PDF and send that if needed.)

Homework and Projects

Projects and HW 12 must be submitted electronically (via Canvas). HW 1-11 may be submitted electronically (via Canvas) or in hard copy. The Canvas deadline will usually be at 2359, with the hard copy deadline at an earlier time that day (usually beginning of class).

The following restrictions apply for electronic submissions:

- Submissions may include multiple files, but only files with the following

extensions will be accepted: pdf, xls, xlsx, ods, numbers, ees, txt, and (for the Projects only) zip. This zip archive may not contain any ppt, pptx, doc, or docx files. Such files will be ignored for the purposes of grading.
- If a hard copy and electronic submission are provided on a homework, the hard copy will take precedence. (Only it will be read, reviewed, and graded.) You may not submit parts of the assignment electronically and parts in hard copy.
- If multiple students in a Project group independently submit to the same deadline, the submission by the student whose name is listed earlier on the assignment that I post to Canvas will take precedence. (One student must submit the entire project -- different students submitting the project narrative and supporting zip archive is not allowed.)

The onus is on you to submit the solutions in the documents or files presented. In the case of EES files, I will only use Solve, Min/Max, and Evaluate Parametric Table functions. You may not have a single file to solve multiple problems with instructions for all but one problem commented out, with a list of instructions to complete a scavenger hunt for the remaining problems.

The project must be written using word processing or typesetting software. Professional document and figure standards will be enforced the project. The onus is on you to figure out how to meet these standards in whatever programs you use to write the document and make figures. I have exactly zero sympathy for those who select a word processor without knowing how to format their text using it – complaints that the standards are not the same as a particular piece of software's defaults will not lead to a revision of requirements or grading.

The following restrictions apply for hard-copy submissions as well as electronic submissions of scanned handwritten work:

- Use pencil or black/dark-blue ink and either white paper (lined or not) or engineering paper.
- Use a one-column layout. Each problem should appear beneath the previous or on a new sheet of paper, not next to other problems.
- Within any given document, problems must be in the same order as in the assignment.
- Submissions, or any part thereof, that are unreadable will earn zero credit.
- Submissions that are only readable with unusual effort, difficulty, or unpleasantness (e.g.; text too small to read comfortably, writing too light to see with normal indoor illumination, poor penmanship, etc.) and those that violate the first, second, and/or third bullet point in this list will be subject to a 10% deduction for the first instance, followed by a 30% deduction for the second, and zero credit for the third and further instances. These progressive penalties apply to these issues as a set. For example, a 10% penalty for a multi-column layout will be followed by a 30% penalty for homework submitted on bright orange paper.

Thermodynamic Properties

Many HW assignments and the project require the use of fluid properties. Use only those properties from EES or the back of CCG. No points will be awarded on problems solved with any other set of properties.

Examinations

For each exam, you will receive an Exam Preview, intended to prepare you for taking the exam (both technically and procedurally). Detailed policies (including grading/curving) are included on this document. The preview will also include the specific topics addressed by the problem (for most problems), the way points are distributed among problems, and a brief list of topics within the scope of the exam.

Exams are due at the end of the examination period. No collaboration is permitted during examinations, although you may prepare for these however you choose. The criteria for make-up exams are the same as for extensions to other assignments. All make-up exams will be held after the regular exam, as organized with me. Conflicts in my proposed make-up times with your personal business will not, in general, be accommodated.

In the event that UF requires that any scheduled exam day(s) are done online, all reasonable efforts will be made to ensure that privacy-violating proctoring software is not required. These efforts include, but are not limited to, switching to have more exams of lower point value each (percent of course grade each) to stay below a mandatory-proctoring threshold.

UF policy restricts make-up finals to Friday, December 11, 1500-1700, barring a conflict at that time with another make-up in a course of higher number. This rule applies regardless of your personal business, such as travel times. I strongly discourage you from making hard-to-change travel plans such as flight reservations before Friday evening.

In the unlikely event you (1) are unable to complete the exam at the time originally scheduled for allowed reasons, (2) are unable to make the UF-appointed make-up exam time for allowed reasons, and (3) are on pace to pass the course, you will receive a grade of I (Incomplete). In the (also unlikely) case that the first two of these conditions apply but you were on pace to fail the course, UF policy requires that I assign a failing grade with the notation that you stopped participating before the end of the term. This

may have implications on financial aid beyond a simple E grade.

Collaboration

Projects will be done in groups. I will assign the groups. A peer review system is in place with a goal of equal workload among students in each group. In the event the workload is significantly unequal, I reserve the right to adjust individual grades to accurately reflect contributions to the work.

The ground rules for collaboration should be decided by each group through compromise and consensus. However, regardless of the preferences of the group as a whole, each of you retains the individual right to privacy and to maintain good mental and physical health. To this end, no one shall be compelled:

- To join a real-name social networking site or modify their existing use of such a site, or
- To accept a 24/7 or other onerous on-call policy.

That is: each member holds a unilateral veto on using Facebook (or some such) for your group's work or for being contacted at all hours of the day and night.

Inter-personal issues within your group stemming from deciding group rules must be brought to me promptly for arbitration. This arbitration will focus on the guidelines above with a goal of equal marginal/new inconvenience among group members and not on determining whose activities outside this course (including personal pursuits, situations, and choices) are more meritorious.

No collaboration is permitted between groups on Projects.

Letters of Recommendation

To request a letter of recommendation/evaluation (for graduate school or otherwise), you must provide (all in a single e-mail):

- A copy of your UF transcript.
- A copy of your résumé (or CV).
- A copy of the following form with all four circles checked (requests with three or fewer circles checked will be denied): http://www.registrar.ufl.edu/pdf/ferparelease.pdf.

Letters are typically filed once per week. For those of you whom I know only through coursework, my letter typically focuses on an estimate of their rank-in-class and on their

performance on projects and challenging problems.

I will only file one batch of letters for each of you during the term. (This policy is designed to keep me from looking up slight changes in your rank/performance multiple times for multiple batches of letters.) I recommend that this batch occur as late as possible in the term to allow me sufficient information (sample size) on your performance to write a useful letter.

I reserve the right to refuse to provide a letter for anyone and am not obligated to provide a reason for such refusal.

Ph.D. Applications – The first duty of every Ph.D. holder is to the truth, whether it is scientific truth or historical truth or personal truth! It is the guiding principle on which inquiry is based, and if you can't find it within yourself to stand up and tell the truth about what happened, you don't deserve to have that degree! (adapted from Captain Picard). If I have {ever caught you in a lie, no matter how small, do not presume that I will write you a letter of recommendation for Ph.D. programs until we have discussed your transgression.

Late and Make Up Work Policy

Attendance

Attendance is not directly considered in the grade. I reserve the right to take attendance to prioritize e-mail assistance.

Excused Absence and Excused Late Work Policy

Late-work excuses/extensions and excused absences can be grouped into the categories of professional, medical, and personal.

Professional: Reasonable extensions for job/internship interviews, technical conferences, or other professional/career development reasons should be requested. Most requests are granted, excluding those that provide a student or group of students an unfair advantage, cause significant disruption to the course or grading schedule, or violate some UF policy.

Medical: Extensions will also be granted for (your own) medical reasons -- please do not come to class if you are ill. Per UF policy, in the case of medical issues that are frequent

or suspiciously-timed (e.g.; you are repeatedly, suddenly ill at deadlines), I may request a signed note from a physician or similar professional practitioner.

Personal: In addition, UF policies require accommodation for several non-academic, non-medical reasons. Extensions for these personal issues are limited to those mandated by the letter of UF policies. The list of UF-approved personal reasons changes from time to time. If you have a question regarding your personal issue and if it qualifies under one of the excused absence/late-work policies, contact me in advance.

All requests for extensions, including excused absences from exams, must be submitted in writing, preferably via e-mail.

The 12-day rule will be enforced strictly. Note that the count of days is based on a per-student, not per-approved-activity basis.

One UF-allowed personal reason for absence or extension is serious accidents or emergencies affecting the student, their roommates, or their family. The word roommates is ambiguous between those with whom a student shares a residence (housemate or flatmate) and only those with whom a student shares a bedroom. For the purposes of this course, roommates shall be taken to mean those with whom a student shares a residence. Further, no definition of family is provided. Therefore, the following people shall be taken as included as family for the purposes of this course:

- Spouse, domestic partner, great-grandparent, grandparent, parent, brother, sister, child, grandchild, or the grandparent, parent, brother, sister, child, grandchild, or great-grandchild of the student's spouse or domestic partner, or the spouse or domestic partner of any of them. This also includes individuals for whom the student is the current legal guardian. These are based on the UF definition of immediate family, which can be accessed at: http://benefits.hr.ufl.edu/wp-content/uploads/sites/3/2018/05/immediate_family_defs.pdf. Note that the term domestic partner does not apply automatically to any partner with whom you cohabitate (formal registration with UF is required). That is, if you have not registered with UF, an accident involving your partner would count, but not one involving your partner's parent, child, etc.
- Your own aunt/uncle, great-aunt/uncle, nibling (niece or nephew), or great-nibling.

More distant relatives (a cousin, your spouse's nibling, etc.), partners (excluding spouses or those with whom you cohabitate), friends (other than roommates), and pets are not included. Minor illnesses (guideline: anything meriting home care only or care at a walk-in clinic, as opposed to an ER) of family members, including minor children, do not count as emergencies, nor do events such as birthdays, anniversaries, weddings, etc.

Political activities, including protests, demonstrations, and the like are considered personal matters and not generally permitted as reasons for extensions. This includes activities related to nuclear engineering or nuclear power. Exceptions: (1) if you are pursuing nuclear-related (whether pro- or anti-) politics as a career path, you may be granted extensions, at my discretion, on condition of providing evidence of bona fide efforts to secure a full-time position or to secure admission to a relevant, non-STEM degree-granting graduate program and (2) activities during or connected to the ANS Annual or Winter Meetings or the ANS Student Conference will be taken as related to those professional activities and potentially grounds for extensions.

Further, be advised that any approved reasons for extensions do not reduce the amount of work you are required to complete, but merely rearranges the timing. For those issues that are predictable (interview, holidays, etc.), you should work ahead to avoid disruption. In the case where your extension (or other accommodation) adversely affects a group project, I may modify the assignment and/or groups for those concerned to minimize the disruption of one student's issues on other group members.

Unexcused Late Work Policy

Unexcused late HW 1-11 submissions and Projects are accepted until 2359 on the following Sunday (except HW 3 and 4, for which the late deadline is Thursday), with a penalty of 1/3 of earned points for HW and a flat 25 point penalty for Projects.

- All reduced-credit, unexcused-late submission must be via Canvas.
- On-time submissions generally take precedence over those in the reduced-credit, unexcused-late period. Exception: if I review an on-time submission and determine that it is not responsive (e.g.; file cannot be opened, file is for the wrong assignment or wrong class), you may be offered the opportunity to submit during the reduced-credit period. This is not to be taken as a guarantee that I will always perform this review prior to Sunday at 2359.
- A late Project also permits late peer reviews, with the same 2359 Sunday deadline. (On-time Projects do not permit for late peer reviews at reduced value.)
- Instructor availability and e-mail responsiveness are not guaranteed after the end of that week's office hours.
- In the event that lecture coverage falls behind such that a full-class extension is offered, that extension will generally be until 2359 the following Sunday (or Thursday for HW 3 and HW 4). In this case, there will no late submissions accepted.

ABET Student Outcomes

Table of aBET

Outcome Number	ABET Student Outcome	Coverage
1	An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics	High
2	An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors	Low
3	An ability to communicate effectively with a range of audiences	Medium
4	An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts	Medium

Outcome Number	ABET Student Outcome	Coverage
5	An ability to function effectively on a team whose members together provide leadership, create a collaborative environment, establish goals, plan tasks, and meet objectives	Low
6	An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions	None
7	An ability to acquire and apply new knowledge as needed, using appropriate learning strategies	None

HWCOE Required Statements

Required Computer

Recommended Computer Specifications: https://it.ufl.edu/get-help/student-computer-recommendations/

HWCOE Computer Requirements: https://www.eng.ufl.edu/students/advising/fall-semester-checklist/computer-requirements/

Commitment to a Positive Learning Environment

The Herbert Wertheim College of Engineering values varied perspectives and lived experiences within our community and is committed to supporting the University's core values.

If you feel like your performance in class is being impacted, please contact your

instructor or any of the following:

• Your academic advisor or Undergraduate Coordinator

• HWCOE Human Resources, 352-392-0904, student-support-hr@eng.ufl.edu

• Pam Dickrell, Associate Dean of Student Affairs, 352-392-2177, pld@ufl.edu

Important Dates

September 29 – Exam 1

October 16 – Project

November 4 – Exam 2

December 11 – Exam 3